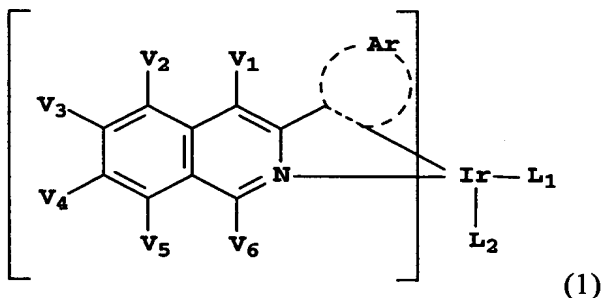


**WHAT IS CLAIMED IS:**

1. An electroluminescent device comprising a cathode and anode, and therebetween, at least two light-emitting layers wherein the first layer, layer A, comprises a phosphorescent light-emitting organometallic compound comprising iridium and an isoquinoline group and a second layer, layer B, comprising a light-emitting material.
2. The device of claim 1 wherein the light emitted from the device is white light either produced directly or by using filters.
3. The device of claim 1 wherein the isoquinoline group is substituted with an aromatic group in the 3-position, which further bonds to iridium.
4. The device of claim 1 wherein the isoquinoline group is a 3-arylisquinoline group.
5. The device of claim 1 wherein the organometallic compound is represented by Formula 1,



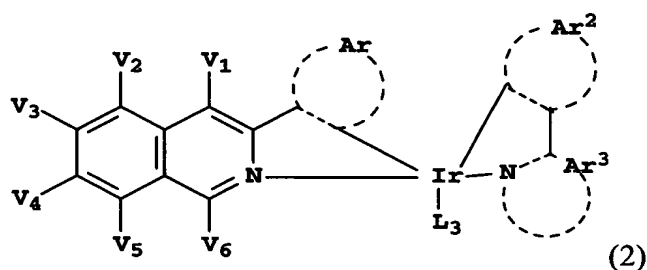
wherein:

Ar represents the atoms necessary to complete a five or six-membered aromatic ring;

L<sub>1</sub> and L<sub>2</sub> represent bidentate ligands; and

V<sub>1</sub>-V<sub>6</sub> each independently represent hydrogen or an independently selected substituent, provided that adjacent substituents can join together to form a ring.

6. The device of claim 1 wherein the organometallic compound is represented by Formula 2,



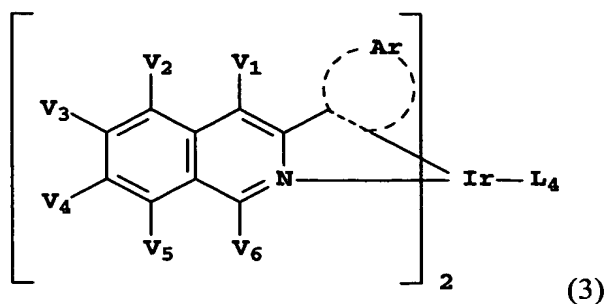
wherein:

Ar, Ar<sup>1</sup>, and Ar<sup>2</sup> independently represent the atoms necessary to complete a five or six-membered aromatic ring;

L<sub>3</sub> represents a bidentate ligand; and

V<sub>1</sub>-V<sub>6</sub> each independently represent hydrogen or an independently selected substituent, provided that adjacent substituents can join together to form a ring.

7. The device of claim 1 wherein the organometallic compound is represented by Formula 3,



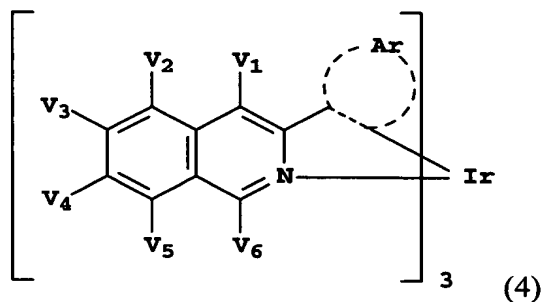
wherein:

Ar represents the atoms necessary to complete a five or six-membered aromatic ring;

L<sub>4</sub> represents a ligand comprising a pyridine group substituted with a five or six-member aromatic group, wherein Ir bonds to both the pyridine group and the aromatic group; and

V<sub>1</sub>-V<sub>6</sub> each independently represent hydrogen or an independently selected substituent, provided that adjacent substituents can join together to form a ring.

8. The device of claim 1 wherein the organometallic compound is represented by Formula 4,



wherein:

Ar represents the atoms necessary to complete a five or six-membered aromatic ring; and

V<sub>1</sub>-V<sub>6</sub> each independently represent hydrogen or independently selected substituents, provided that adjacent substituents can join together to form a ring.

9. The device of claim 1 wherein the layer B contains a fluorescent light-emitting material and a host for that material.
10. The device of claim 1 wherein the layer B contains a phosphorescent light-emitting material and a host for that material.
11. The device of claim 1 wherein layer B emits blue or blue-green light.
12. The device of claim 1 wherein layer A emits yellow light and layer B emits blue light.
13. The device of claim 1 wherein layer A emits red light.
14. The device of claim 1 wherein layer A emits red light and layer B emits blue-green light.
15. The device of claim 1 wherein layer A emits light with color defined by the following relationship between CIE x and y coordinates:
$$0.24 * x + 0.26 < y < 3 * x - 0.6.$$
16. The device of claim 1 wherein layer B emits light with color defined by the following relationship between CIE x and y coordinates:
$$2.4 * x - 0.43 < y < -0.077 * x + 0.35.$$
17. The device of claim 1 wherein layer A emits light with color defined by the following relationship between CIE x and y coordinates:
$$0.24 * X + 0.26 < y < 3 * x - 0.6,$$
and layer B emits light with color defined by the following relationship:

$$2.4 * x - 0.43 < y < -0.077 * x + 0.35.$$

18. The device of claim 1 wherein the relationship between the CIE color coordinates of light emitted by layer A and B is defined by equations (1) and (2):

$$y_y > (0.25 - y_b) / (0.31 - x_b) * x_y + (y_b * 0.31 - 0.25 * x_b) / (0.31 - x_b) \quad (1)$$

$$y_y < (0.41 - y_b) / (0.31 - x_b) * x_y + (y_b * 0.31 - 0.41 * x_b) / (0.31 - x_b) \quad (2)$$

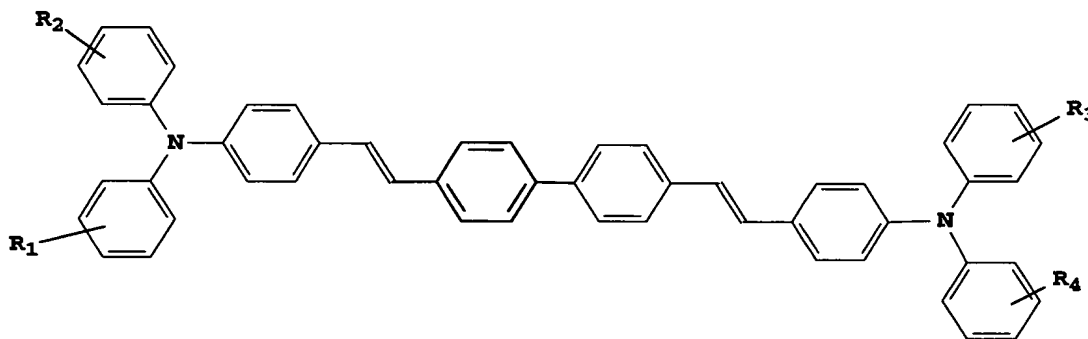
wherein,

( $x_y$ ,  $y_y$ ) represent the  $x$  and  $y$  color coordinates of light emitted by layer A,

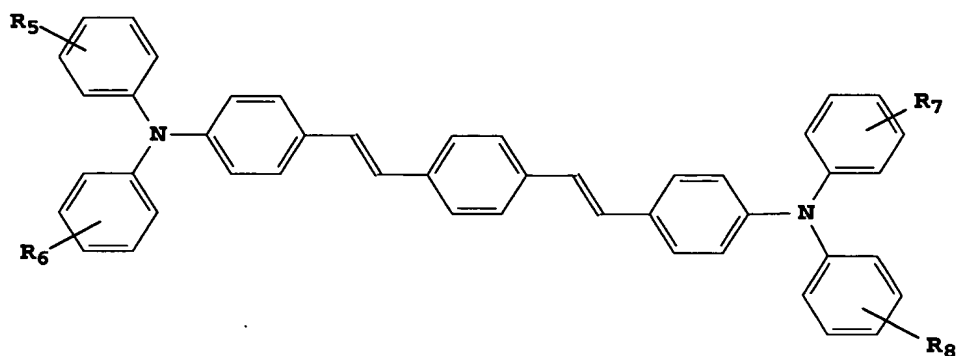
( $x_b$ ,  $y_b$ ) represent the  $x$  and  $y$  color coordinates of light emitted by layer B.

19. The device of claim 9 wherein the fluorescent material comprises a perylene group.

20. The device of claim 9 wherein the fluorescent material comprises a material of Formula 5a or Formula 5b,



Formula 5a



Formula 5b

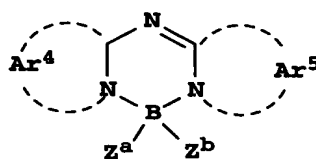
wherein:

R<sub>1</sub> – R<sub>8</sub> independently represent hydrogen or an independently selected substituent.

21. The device of claim 9 wherein the fluorescent material comprises 1,4-bis[2-[4-[N,N-di(p-tolyl)amino]phenyl]vinyl]benzene (BDTAPVB) or 1,4-bis[2-[4-[N,N-di(p-tolyl)amino]phenyl]vinyl]biphenyl.

22. The device of claim 9 wherein the fluorescent material comprises a boron compound.

23. The device of claim 9 wherein the fluorescent material comprises a compound represented by formula 6a,



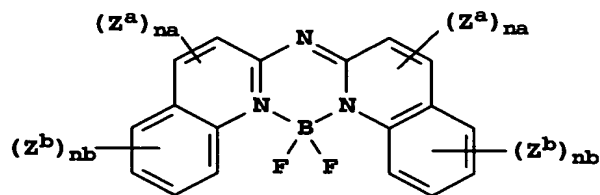
Formula 6a

wherein:

Ar<sup>4</sup> and Ar<sup>5</sup> independently represent the atoms necessary to form an aromatic ring group; and

Z<sup>a</sup> and Z<sup>b</sup> represent independently selected substituents.

24. The device of claim 9 wherein the fluorescent material comprises a compound represented by Formula 6b,

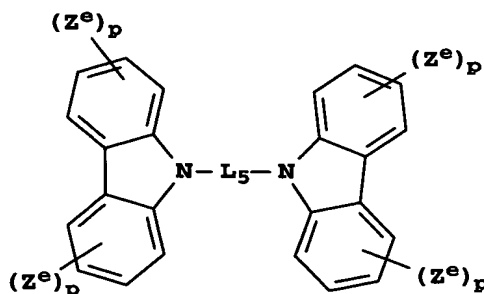


Formula 6b

wherein:

each  $Z^a$  and  $Z^b$  represents independently selected substituents;  
 each  $na$  independently represents 0, 1, or 2; and  
 each  $nb$  independently represents 0-4.

25. The device of claim 9 wherein the host material is represented by Formula 7,



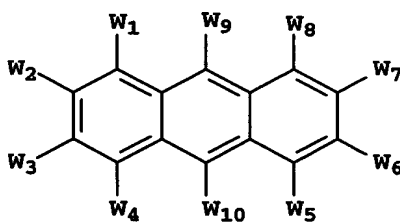
Formula 7

wherein:

each  $Z^e$  represents hydrogen or an independently selected substituent,  
 each  $p$  independently is 0-4;  
 $L_5$  is a phenylene group or a biphenylene group.

26. The device of claim 9 wherein the host material comprises an anthracene group.

27. The device of claim 9 wherein the host material is represented by Formula 8,



Formula 8

wherein:

W<sub>1</sub>-W<sub>10</sub> independently represent hydrogen or an independently selected hydrocarbon substituent, provided that two adjacent substituents can combine to form rings.

28. The device of claim 27 wherein W<sub>9</sub> and W<sub>10</sub> of Formula 8 independently represent naphthyl or biphenyl groups.

29. The device of claim 27 wherein W<sub>9</sub> of Formula 8 represent a biphenyl groups.

30. The device of claim 1 wherein the phosphorescent material is between 2 and 15 wt% of the light-emitting layer A.

31. A display comprising the electroluminescent device of claim 1.



32. An area lighting device comprising the electroluminescent device of claim 1.

33. A process for emitting light comprising applying a potential across the device of claim 1.